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ABSTRACT

In a study of the effects of school structure on heterosexual behavior, self-report data on heterosexual behavior were collected from more than 2,000 sixth through tenth graders in 1978 when their district had a 6-3-3 school structure and in 1979 after the district had changed to a 6-2-2-2 structure. The district was located in a medium-size, rapidly growing, Midwest, middle to upper middle class suburban area with a high degree of marital stability. Students filled out a questionnaire on amount and type of dating, different types of sexual behavior, perceived peer pressure to date, and the relative age of members of the opposite sex that they had met or dated. In addition, the questionnaire asked students about their families, neighborhood, self-esteem, attitudes towards school, perceptions of the security offered by the school, and their engagement in such behavior as substance use, truancy, or vandalism. Results indicated that the absence of ninth graders from junior high school had almost no effects on eighth graders in terms of dating or sexual behavior and only minor effects on seventh graders in the direction of increased pressure to date for both sexes, increased amounts of dating for females and increased dating in couples for males. The presence of the older tenth graders in the new intermediate high school appeared to affect the dating and sexual behavior of ninth grade females in the direction of more dating and ninth grade males in the direction of more pressures to date, more dating in couples, and more sexual intercourse. (JMB)

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The Influence of Different School Structures on
Heterosexual Behavior in Early Adolescence*

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Abstract

Schools are often held responsible for students' increased heterosexual sophistication and are the location for some heterosexual activities. We explore the levels of heterosexual activities engaged in by over 2,000 sixth through tenth graders who moved from a 6-3-3 structure to a 6-2-2-2 structure. The focus is on whether seventh graders display more heterosexual sophistication when ninth graders are in the same building than when they are absent. Also explored are the effects of school structure on perceived peer attitudes about dating and the relative age of students respondents meet and go out with.

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Over the last twenty years the debate over which grade level arrangements or school structures are most appropriate for early adolescents has been growing. This debate has brought about a growing dissatisfaction with traditional junior high schools containing grades 7 through 9 and a gradual movement toward alternative grade level arrangements such as middle schools containing students in sixth through eighth grade. School districts must take a number of factors into consideration when deciding what grades to place in a building. High on the list of considerations are financial factors followed by academic or curriculum considerations and finally the social and psychological impacts of the different arrangements. Although the social and psychological impacts of different grade level arrangements are often talked about and sometimes used as justifications for a change, there is surprisingly little comparative evidence of the effects of different school structures. Analyses by Blyth, et al. (1978) and Simmons, et al. (1979) have shown that different structures can indeed have major and significant effects on such important areas as self-esteem, victimization, participation in extra-curricular activities, and the perceived degree of anonymity a student feels towards his environment.

One frequently discussed social consequence of different school structures is the development of heterosexual behavior in early adolescents. While heterosexual behavior clearly is not the only criterion for selecting a school structure, it is important for at least two reasons. First, it is important because of the degree of parental concern over what is seen as premature dating and sexual behavior. This is particularly true for parents of girls who do not want their daughters to "grow up too fast" (Hill, 1978; Blyth and Hill, 1980). Parents are concerned that younger students when exposed to older, more sophisticated students will grow up

more rapidly than if they had been isolated from such students. Second, we know that heterosexual behavior is important because of its relationship to other social and psychological variables. Simmons, et al. (1979) has shown that girls in junior high schools who have reached menarche and date have lower self-esteem than do girls who have reached menarche but do not date. Thus, heterosexual behavior in early adolescents is important both because of its relation to parental concerns and its psychological consequences for students.

In this paper we shall look at the effects of changing grade level arrangements on the heterosexual behavior of early adolescents. Although all individuals are expected to develop positive and fulfilling ways of interacting with members of the opposite sex, the development of heterosexual behavior in early adolescents is frequently seen as problematic. For example, Douvan and Adelson (1966) have shown that the introduction of such contacts too early may have certain psychological disadvantages even though, at a later point in time, they may be a sign of positive adjustment. Thus, the issue is not whether or not males and females ought to develop heterosexual contacts, but rather when such contacts should begin and the rate at which they ought to develop. It is this issue of timing and relative sophistication which is addressed here.

Although there is little understanding of when individuals begin heterosexual development or the rate at which it proceeds, Dunphy (1969) has shown that it follows essentially a three-step pattern. The first step is characterized by the predominance of same sex friends in a student's important groups. In the second step, the pattern shifts from same sex groups to groups which include members of the opposite sex. The final step involves breaking up into pairs or couples. Given that this pattern of

heterosexual development is age related, one would expect older students to be at a more advanced level than younger students. If we assume that the older students in a school environment may effect the heterosexual development of younger students, what grades are placed together in a school may alter the onset and rate of development in the area of heterosexual behavior.

In addition to examining the rate at which students develop different types of heterosexual relationships, it is also necessary to explore differences in the sexual behavior which takes place within these relationships. It is this latter area which is most often of concern to parents. Furthermore, it is possible that the major consequence of older peer influence is in the area of sexual behavior rather than the type of heterosexual relationships which younger students develop.

In light of these perspectives two general hypotheses can be formulated:

- I. The presence of older students in the same school will increase the frequency of dating behavior younger students engage in. Conversely, the absence of older students in a given school will be related to reduced dating behavior.
- II. The presence of older students in the same school will increase younger students' sophistication both in terms of the type of dating they do and the sexual behavior they engage in. Conversely, the absence of older students will be related to decreased sophistication of both dating and sexual behavior.

It should be noted that neither of these hypotheses explicitly take into account the age of younger students, the age of older students, the age differences between younger and older students, nor the anticipated

level of dating and sexual behavior of each age group. While one may expect these factors to be related to the magnitude of influence older students have on younger students, they have not been specifically included in order to allow a test of the hypotheses across multiple grade levels.

In order to test these hypotheses at several grade levels we shall use data from a study of secondary students in a suburban public school district which changed from a 6-3-3 structure in 1977-78 to a 6-2-2-2 grade level structure in 1978-79 (see Figure 1). In making this change in structures, the school district permitted us to evaluate the social and psychological consequences of the different arrangements for each grade level from sixth through twelfth (see Blyth and Hill, 1980). This change in school structures permits at least three separate tests of the hypotheses concerning the influence of older students on younger students. Specifically, it is possible to look at the effect of the presence and absence of ninth graders on the dating and sexual behavior of seventh graders; the effects of the presence and absence of ninth graders on the dating and sexual behavior of eighth graders; and to look at the presence and absence of tenth graders as it effects the dating and sexual behavior of ninth graders.

The two general hypotheses noted above can now be stated more specifically for each of the three grade levels across the two school structures.

Ia. The absence of the ninth graders from the junior high schools in 1978-79 should be associated with a decreased amount of dating on the part of seventh graders.

IIa. The absence of the ninth graders from the junior high schools in 1978-79 should be associated with decreased sophistication in both

the type of dating and sexual behavior which seventh graders engaged in.

- 1b. The absence of the ninth graders from the junior high schools in 1978-79 should be associated with a decreased amount of dating on the part of eighth graders.
- 11b. The absence of ninth graders from the junior high schools in 1978-79 should be associated with decreased sophistication in both the type of dating and sexual behavior which eighth graders engaged in.
- 1c. The presence of ninth and tenth graders in the new intermediate high school in 1978-79 should be associated with an increased amount of dating on the part of ninth graders.
- 11c. The presence of ninth and tenth graders in the new intermediate high school in 1978-79 should be associated with increased sophistication in both the type of dating and sexual behavior which ninth graders engaged in.

In addition to discussing the amount and type of dating and different types of sexual behavior, we shall also explore changes in perceived peer pressure to date and the relative age of members of the opposite sex that students have met or gone out with.

METHODS

Sample. The sample for this study was drawn from a medium-size, rapidly growing, Midwest, public, suburban school district in a middle class to upper middle class area with a high degree of marital stability. The study was conducted in the Spring of 1978 when the District was using a

6-3-3 school structure and the Spring of 1979 after the District had changed to a 6-2-2-2 school structure.

In the spring of 1978 the population of sixth through ninth grade students in the District were asked to fill out a questionnaire. In addition, a random sample of tenth through twelfth graders were also asked to complete the questionnaire. In the spring of 1979, the entire population of seventh through tenth graders in the District were asked to fill out an almost identical questionnaire along with a sample of eleventh and twelfth graders. The questionnaire asked students about their family, their neighborhood, their attitudes towards school, how secure they felt their school was, their self-esteem, and if they had engaged in such behaviors as substance use, truancy, vandalism, dating, necking and intercourse. The questionnaire administration took approximately 55 minutes and was done during regularly scheduled classes.

In both 1978 and 1979 approximately two percent of all students were unable to participate because they lacked parental permission. An additional six percent of the students were absent during the administration of the questionnaire. Thus, roughly 92% of the students whom we asked to participate did so in both 1978 and 1979. Furthermore, of the 3,426 questionnaires completed by students in 1978, 3,372 or 98% were judged to be useful. Similarly, 3,189 or 98% of the 1979 questionnaires were considered usable. A questionnaire was considered to be unusable if the student did not answer the grade level question, left a majority of the questions blank or was judged by a coder to contain a majority of non-serious responses.

For purposes of this paper, only the responses of sixth through tenth grade students were used. Furthermore, students moving into the District

during the 1978-79 school year were excluded from this analysis. These students were excluded because of the possible confounding of school structure effects with effects due to new students entering the District. As noted above, the District is growing rapidly (approximately 9% a year), unlike many in the United States today. At the time of this analysis, it was not possible to eliminate students from the 1978 data who had moved out of the District by the time of the second questionnaire administration.

Measurement. The dependent variables of dating and sexual behavior are each composed of two facets. The two facets of dating are the frequency with which students date and the type of dating (i.e., do students date in groups only or also as couples). The two facets of sexual behavior are whether they have necked and whether they have had sexual intercourse. In addition, we asked students about the relative age of their opposite sex contacts and whether or not they perceived their same sex friends as wanting them to date. Although students were also asked whether they had a special boyfriend or girlfriend, this question will not be used extensively because of apparent differences in the way boys and girls interpreted the questions.

In order to measure the amount of dating students engaged in, we combined responses from two separate questions. The questions for males was as follows:

1. How often do you go out with a group of girls and other boys at night?
 - Never
 - Once a month or less
 - A couple of times a month
 - Once a week
 - A couple of times a week
2. How often do you go out with a girl alone?
 - Never
 - Once a month or less
 - A couple of times a month

Once a week
A couple of times a week

Except for appropriate references to members of the opposite sex, identical questions were asked for females. The responses from these two questions were converted into the number of times per month a student dated and then added together. Rather than using this twelve-point scale of frequency, we trichotomized it into never dating, dating less than once a week, and dating at least once a week categories. Thus, the frequency of dating does not distinguish between dating in groups and dating as couples.

In order to measure the type of dating which a student was engaging in we used the same two questions noted above. After looking at the correlations between the two questions (.53 for males and .56 for females) and noticing the small number of cases where students dated as couples but did not date in groups, we created a dichotomy between those students who engaged in group dating only and those who engaged in couple dating (regardless of whether or not they were also group dating). In terms of Dunphy's (1963) discussion of peer groups, couple dating would be a more sophisticated or advanced form of heterosexual behavior than going out in mixed groups. As will be noted in the findings section, there is a clear progression from group dating to couple dating as grade level increased. It should be stressed that both the frequency of dating and the type of dating depend on students' self-reports.

The self-reported sexual behavior of male students, with the exception of sixth graders, was measured using the following two questions:

1. Have you ever "necked" or "made out" with a girl?
2. Have you ever had sexual intercourse with a girl?

Except for appropriate changes in reference to members of the opposite sex, identical questions were asked for females. Although these were sensitive

questions to be asking on a questionnaire in school, only 3.0% of the boys and 4.3% of the girls chose to leave the necking question unanswered. Similarly, only 5.4% of the boys and 5.9% of the girls left the intercourse question blank.

In order to understand the degree to which students in a given grade were meeting or going out with people who were either older or younger than themselves, we asked males the following question:

How old are most of the girls that you meet or go out with?
Older than you, your age, or younger than you.

Although this question (with appropriate reference to the opposite sex) was asked of all students, we shall only analyze it for those who reported that they engaged in either group or couple dating.

Since we are interested in the effect of older students on the amount of pressure younger students feel with respect to dating, we included a question on whether or not same sex friends were perceived as wanting the student to date. The exact wording of the question for males was as follows:

Do your boyfriends want you to go out with girls?

This question will be used as a dichotomy with students who said their friends wanted them to date in one category and those who said they did not want them to date or didn't know how their friends felt about their dating in the other category. This was necessary because very few friends were perceived as not wanting the student to date. In using this question as a measure of peer influence with regard to dating, one must remember that it primarily measures the influence of same grade peers rather than older grade peers. That is, it is an indirect measure of the amount of pressure in the school to date and is not a direct measure of the amount of pressure older students place upon younger students.

Analysis. In order to contrast the different dependent variables as they are affected by the two school structures, we shall first proceed to compare the 1978 structure to the 1979 structure for each grade level from seventh through tenth grade. In addition, we will include the 1978 sixth grade data in order to provide an elementary school reference point for the level of involvement in each of the types of behaviors. After examining changes in the extent to which students reported their same sex friends wanting them to date and the amount of dating students engaged in, we shall look at only those students who were dating in order to explore whether or not there are differences in the type of dating or sexual behavior they engaged in. Since most of the variables involved in this analysis are categorical rather than interval, we shall use the chi-squared test of independence and either Cramer's V or phi as a measure of association.

FINDINGS

Perceived Pressure to Date. Before presenting the data for each of the hypotheses noted above, we shall examine students' perceptions of the amount of peer pressure to date (see Table 1). For both males and females the perceived support for dating among same sex friends increased each year from grades sixth through tenth. For sixth grade females only 23% of their girlfriends were seen as wanting them to date as compared to 58% of the tenth grade females in 1978. The percentage who saw friends as wanting them to date was slightly higher for males than females at most grade levels.

Given the basic hypotheses noted above we would expect the absence of ninth graders from the junior highs in 1979 to be associated with a decrease in the percentage of seventh graders who perceived their same sex

friends wanting them to date. As Table 1 clearly indicates, this is not the case. In fact, for both males and females there is a significant increase in the percentage of students who perceived their same sex peers as wanting them to date. While this change is not large for seventh-grade females (from 29% to 36%) it is more substantial for males (from 34% to 48%). Thus, contrary to what we expected to find, there are increased amounts of perceived pressure to date among seventh graders when there are no longer ninth graders in the building.

Although we would have expected a decrease in perceived peer pressure to date for eighth graders, there was no change in support for dating among same sex friends for either males or females. Essentially, there is approximately a constant 47% of the eighth-graders who perceived their same sex friends as wanting them to date.

Finally, we would expect the presence of tenth graders in the new intermediate high school in 1979 to be associated with an increase for ninth graders in the perceived peer pressure to date. As the results in Table 1 indicate, this is true only for males (from 50% in 1978 to 58% in 1979). This difference was significant at the .10 level but not at the .05 level. There was no increase or decrease in perceived pressure for ninth-grade females.

In summary, the percentage of students who perceived their same sex friends as wanting them to date was not effected by the presence or absence of older students in the anticipated ways for seventh or eighth graders. In fact, for seventh grade students there was increased pressure in spite of the absence of ninth graders. The only group which reacted as expected were ninth grade males.

Amount of Dating. Table 2 contains a comparison of the amount or frequency of dating for each grade from six through ten. As one would expect, older students have a higher frequency of dating than do younger students. This is true for both males and females. Furthermore, it is a function of both an increase in the frequency of dating and a decrease in the percentage of students who do not date. For example, only 22% of the sixth-grade females in 1978 dated at least weekly as compared to 59% of the tenth-grade females in 1978. Similarly, while almost 40% of the sixth-grade females did not date in 1978 only 7% of the females in tenth grade in 1978 did not date. The results for males are quite similar except males date slightly more often than females at almost every grade level. We shall now begin to test the specific hypotheses formulated above.

Hypothesis 1a. The absence of ninth graders in the junior high schools in 1979 should be associated with a decreased amount of dating for seventh graders.

The expected results for seventh graders are not found. Instead there is an increase in the amount of dating for seventh-grade females between 1978 and 1979 and no significant change for males. Thus, the absence of ninth graders did not decrease the amount of seventh-grade dating and may actually have increased it for females. These results parallel those for the perceived peer pressure to date for seventh graders.

Hypothesis 1b. The absence of ninth graders from the junior high schools in 1979 should be associated with a decreased amount of dating for eighth graders.

Once again we find the opposite of the hypothesis to be the case for eighth grade females. This increase in the amount of dating is largely at the less than weekly level. In 1978, 40% of the eighth grade females were

dating less than once a week, while 48% of the eighth grade females in 1979 were dating less than once a week. There were no significant differences between 1978 and 1979 for eighth grade males. What slight differences there were, however, are in the direction of increased dating in 1979.

Hypothesis 1c. The presence of ninth and tenth graders in the new intermediate high school should be associated with increased amounts of dating for ninth graders.

As Table 2 indicates, there is indeed increased dating for ninth-grade females in 1979 when the tenth graders are present. The increase takes place mostly at the most frequent level of dating. There was no significant difference for males, but the small differences which existed were in the direction of the hypothesized increase.

In summary, it would appear as though the presence of older students is not as important a determinant of the amount of dating for seventh and eighth graders as originally thought. While more of the ninth graders in the junior high schools in 1978 clearly dated more frequently than did the seventh or eighth graders in the building, they apparently did not act as role models for such behavior. If anything, the presence of ninth graders acted to depress the amount of dating which seventh- and eighth-grade females engaged in. The hypothesized effects were, however, confirmed for ninth-grade females when they were in a school with tenth graders. As was the case for perceived peer pressure to date, hypothesized relationships hold best at the ninth grade level and are unsupported and even in opposite directions at the seventh and eighth grade levels. The total lack of differences between years for seventh-, eighth- or ninth-grade males suggest that the amount of dating males do is less directly associated with the grade range of students in the schools. It should be noted, however,

that tenth-grade males experienced a decreased frequency of dating when they were taken out of contact with eleventh and twelfth graders.

Relative Age of Dating Partners. Before we move on to the next hypothesis, we shall examine the relative ages of those members of the opposite sex which daters met or went out with (see Table 3). Students were asked whether the people they met or went out with were younger, the same age, or older than themselves. Since there were so few students who said they met or went out with students younger than themselves, these responses were combined with same age responses. As one would expect, both seventh-grade males and females met or went out with fewer older students in 1979 when the ninth graders were no longer in the same building. These differences, however, were only significant for males and then only at the .07 level. There were no significant differences in the relative age of students eighth graders met or went out with across the two years. The direction of the difference is a decrease as one would expect.

For ninth graders, however, we find a significant increase in the percentage of students who met or went out with people older than themselves when they were placed in the same building as tenth graders. This difference is more dramatic for females as one might expect since females tend to date males older than themselves.

The information in Table 3 suggests that although there is increased dating among seventh-grade females, there is also a small decrease in the percentage of females who are going out with students older than themselves. The difference may not be significant in part because eighth graders are also older than seventh graders and cannot be distinguished from ninth graders in our question. The lack of significant differences for eighth graders, however, may be attributable to the fact that a high

percentage of eighth graders are still going out with older students in spite of their being in a different school setting. Some support for this interpretation comes from another series of questions we asked with respect to special girlfriends or boyfriends and what grade these special friends were in. When we look at those special friends who were seen outside of school at least once a week, we found that eighth-grade females' special friends were less likely to be in ninth grade in 1979. Similarly, the special friends of ninth-grade males and females were more likely to be tenth graders.

Type of Dating. Table 4 presents a comparison of the type of dating which students engaged in during grades six through ten. Type of dating refers to whether or not the dating was done in groups only or specifically as a couple (i.e., do you go out alone with a boy?). The information presented in Table 4 is only for students who said they dated in some fashion. As one would expect, there is a gradual change from dating in groups only to dating as couples as one moves from the sixth to the tenth grade. For example, the percentage of females dating in groups only drops from 52% in the sixth grade in 1978 to only 19% of the tenth graders in 1978. This should not be taken to mean that tenth graders were not going out in mixed groups, but rather is an indication that more and more were also going out as couples. A similar change in the composition of the type of dating is apparent for males. The major difference between males and females is that more males were dating in couples earlier than were females. This changing composition across grade levels lends credibility to the hypothesis that the presence of older students will be related to increased dating as couples since this is the type of dating such older students are primarily engaged in (and hence, modeling).

Hypothesis 2a. The absence of ninth graders in the junior high schools in 1979 should be associated with a decreased percentage of seventh graders who date as couples.

Once again we find that the expected hypothesis is not confirmed for either males or females at the seventh grade level. In fact, we find an increase in the amount of dating as couples for males in the seventh grade in 1979, (from 76% to 83%). While this increase is only significant at the .09 level, it was in the opposite direction of what the hypothesis predicted. There was no change in the type of dating for seventh-grade females.

Hypothesis 2b. The absence of ninth graders from the junior high schools in 1979 should be associated with a decreased percentage of eighth graders who date as couples.

We continue to find that there are no significant differences or changes between 1978 and 1979 for either eighth-grade males or females.

Thus, eighth graders seem to be the grade least affected by the absence of ninth graders from the school.

Hypothesis 2c. The presence of ninth and tenth graders in the new intermediate high school should be associated with an increased percentage of ninth graders who date as couples.

As Table 4 indicates, this hypothesis gets only partial support in that there are no significant changes for ninth-grade females but a strong increase in the percentage of males who date as couples in 1979. It is unclear why this relationship should hold only for ninth-grade males in the tenth grade.

Sexual Behavior. As suggested in the hypotheses, another way of assessing whether or not dating at any given grade level has changed in

terms of sophistication or intimacy is to look at the sexual behavior of daters. Before examining each of the separate hypotheses with regard to sexual behavior, however, it is important to note an alternative hypothesis which may account for the poor fit of the hypothesis in the seventh and eighth grade. This alternative hypothesis would suggest that the absence of ninth graders in the junior high schools serves to reduce the seriousness or threatening nature of dating which may be perceived as part of the way ninth graders date. Thus, it may be more comfortable for seventh and eighth graders to date in a fashion more appropriate for their age. This alternate hypothesis would suggest that seventh and eighth graders may even increase the amount of dating they do. Further, it would suggest that the type of dating the students do would be less sophisticated or intimate than it was when ninth graders were present. Although this alternative hypothesis was not supported with respect to the type of dating discussed in Table 4, it may be more strongly supported by the amount of sexual behavior which occurs among daters. It should be noted that this alternative hypothesis does not predict different conclusions than the major hypotheses for sexual behavior. The major anticipated difference is that the sexual behavior hypotheses will hold in seventh and eighth grade where the previous hypotheses have not been supported.

The relevant data are presented in Table 5 which look at the percentage of daters who engaged in necking and sexual behavior each year. As one would expect, the percentage of students who engaged in necking increased from seventh through tenth grade (the questions were not asked in sixth grade). While less than half of the seventh grade females engaged in some form of necking, 80% of the tenth-grade females did so. The findings for males are similar although males tend to do more necking at each grade

level (particularly in seventh grade). Similar increases across grade levels and higher frequency for males than females are found for sexual intercourse.

Hypothesis 3a. The absence of ninth graders in the junior high schools in 1979 should be associated with a decreased percentage of seventh grade daters who engage in necking and sexual intercourse.

The data for this hypothesis are presented in Table 5 where we find that there are no significant differences between 1978 and 1979 for seventh grade males or females with respect to necking. We do, however, find a significant decrease in the percentage of females who have experienced sexual intercourse. This decrease is significant at the .01 level. There is no decrease for males and, in fact, there is a slight, but insignificant, increase. Thus, there is not overwhelming support for the main or alternate hypothesis as a result of this set of tests. It is worth noting, however, that the only significant decrease for seventh graders was related to the most serious form of intimacy and perhaps the most threatening (especially to younger females).

Hypothesis 3b. The absence of ninth graders from the junior high schools in 1979 should be associated with a decreased percentage of eighth graders who engage in necking and sexual intercourse.

Among eighth graders we find no significant changes in the percentage of students who have necked or had sexual intercourse. Although there was a slight decrease in intercourse for eighth-grade males, it was not significant. These findings once again draw attention to the inmutability of eighth graders with respect to dating or sexual behavior.

Hypothesis 3c. The presence of ninth and tenth graders in the new intermediate high school should be associated with an increased percentage of ninth graders who engage in necking and sexual intercourse.

The results for this hypothesis are presented in Table 5 and clearly indicate that there are no significant increases in either necking or sexual intercourse for females. The only significant increase was for males and had to do with sexual intercourse. While 31% of the ninth grade males in 1978 had experienced sexual intercourse at least once, some 45% of the ninth grade males in 1979 experienced sexual intercourse at least once. Thus, it would appear that the presence of tenth graders had some limited effects on the sexual behavior of the ninth graders.

DISCUSSION

The findings presented above should cause serious rethinking of the basic hypothesis that the presence of older students in a school causes younger students in the building to "grow up too fast" in terms of heterosexual behavior. Minimally, it would appear as though the magnitude of the effect depends upon the particular type of heterosexual behavior under discussion and the degree to which it is prevalent in the younger grades. As noted briefly above, it seems more reasonable to consider an alternative hypothesis which suggests that the presence of older students has little or no effect on the dating behavior of younger students when such students are two grade levels away from the older students. Thus, seventh graders are not negatively effected by the presence of ninth graders. Interestingly, the eighth graders in the junior highs remain unchanged regardless of whether or not ninth graders were physically present. This suggests that

eighth grade is a key year for the beginning of heterosexual development and that to the extent that this is biologically related, it is less affected by the social setting.

If one is willing to make this argument then it is possible to look at the effect of ninth graders on seventh graders in a new light. If eighth grade is when many of the changes in dating and sexual behavior occurs (as would seem to be indicated by the dramatic increases between seventh and eighth grade on many of the variables presented in Tables 1 through 5), then the presence of ninth graders can be seen as providing social support for what eighth graders would probably be engaged in anyway. In some sense, the presence of ninth graders in the school allows eighth graders to direct their biological urges toward older rather than younger students. When the ninth graders are not present, there is more pressure (but of a less sophisticated type) on younger students to begin modeling the types of behaviors eighth graders engage in.

While this is all post hoc, it is interesting to note that one way of looking at this alternate hypothesis would be to compare seventh graders to eighth graders and eighth graders to ninth graders within each year of the study. In 1978, one would expect seventh graders to be different than eighth graders and eighth graders to be similar to ninth graders. This would reverse in 1979 when seventh graders would presumably become more like the eighth graders according to the alternate hypothesis and ninth graders (who are now in contact with tenth graders) would be more advanced than eighth graders.

Since these within year tests have been run on the same data used previously, it should be noted that this is not an independent test of the new hypothesis. Nonetheless, it is interesting to note that when one looks

at differences between seventh graders and eighth graders in 1978 with respect to perceived pressure to date, the amount of dating and the type of dating, one finds significant differences for males and females for everything except the type of dating males engage in. That is, seventh graders are indeed significantly different than eighth graders in 1978. By way of contrast, in 1979 we find that seventh-grade males are not significantly different from eighth-grade males with respect to pressure and the type of dating they do. Males are still different in terms of the amount of dating they do. For females we continue to find significant differences between seventh graders and eighth graders in 1979 for all three aspects of heterosexual behavior. Even so, the differences are less than they had been in 1978.

Similarly, when we compare ninth graders to eighth graders in 1978, we find no significant differences for either males or females at the .05 level. Thus, there is no difference in the perceived pressure to date from same sex peers, the amount of dating, or the type of dating they engaged in. In 1979, after the ninth graders had moved into a 9-10 building, we found significant differences on all three indicators for males, but only in the amount of dating for females. Thus, the evidence available suggests that eighth rather than ninth grade is the key grade with respect to heterosexual development. The absence of ninth graders did not "slow down" the development of dating behavior among seventh graders.

SUMMARY

From the results reported on here, it would appear as though the absence of ninth graders from a junior high school has relatively minor effects on seventh graders and almost no effects on eighth graders in terms

of dating or sexual behavior. The minor effects on seventh graders were in the direction of increased pressure to date for seventh grade males and females, increased amounts of dating for seventh grade females and increased dating as couples for seventh grade males. On the other hand, the presence of the older tenth graders in the new intermediate high school in 1979 did influence the dating and sexual behavior of ninth graders as predicted. In particular, we found more pressure to date on males in the ninth grade, a higher amount of dating among ninth grade females, more dating as couples for ninth grade males and more sexual intercourse among ninth grade males. It would appear that eighth grade rather than ninth grade is the pivotal year for heterosexual development.

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FIGURE 1
THE TWO EDUCATIONAL CONTEXTS UNDER STUDY

Average Age	Grade Level	Grade Organization		Type of Education
17	12	SENIOR	SENIOR HIGH	Secondary
16	11	HIGH	SCHOOL	
15	10	SCHOOL	INTERMEDIATE HIGH	
14	9	JUNIOR	SCHOOL	
13	8	HIGH	JUNIOR HIGH	
12	7	SCHOOL	SCHOOL	
11	6	K-6 ELEMENTARY SCHOOL	K-6 ELEMENTARY SCHOOL	Elementary
10	5			
9	4			
8	3			
7	2			
6	1			
5	K			
		1977 - 1978 School Year	1978 - 1979 School Year	

TABLE 1: Perceived Pressure to Date (from Same Sex Friends) within Grades 6 through 10 by Year and Sex

FEMALES									
Percentages of Students who Perceived that Their	6th	7th		Grade 8th		9th		10th	
	1978	1978	1979	1978	1979	1978	1979	1978	1979
Girlfriends want them to Date	23.2%	29.1%	36.2%	44.0%	46.6%	45.8%	48.2%	57.9%	60.8%
(N)	(310)	(306)	(279)	(323)	(305)	(299)	(313)	(126)	(278)
p-value	--	.081		n.s.		n.s.		n.s.	
phi	--	.08		.03		.02		.03	

MALES									
Percentages of Students who Perceived that Their	6th	7th		Grade 8th		9th		10th	
	1978	1978	1979	1978	1979	1978	1979	1978	1979
Boyfriends want them to Date	30.6%	34.3%	48.1%	46.1%	48.7%	49.6%	57.9%	62.2%	56.2%
(N)	(304)	(271)	(310)	(317)	(269)	(270)	(290)	(74)	(242)
p-value	--	.001		n.s.		.060		n.s.	
phi	--	.14		.03		.08		.05	

TABLE 2: Comparisons of the Amount of Dating
(Either in groups or as couples) within
Grades 6 through 10 by Year and Sex

FEMALES

Amount of Dating	6th		7th		Grade 8th		9th		10th	
	1978		1978	1979	1978	1979	1978	1979	1978	1979
None	39.4%		27.2%	19.2%	20.8%	11.5%	14.3%	6.7%	6.5%	3.4%
Less than Weekly	38.1		47.9	51.2	39.6	48.3	40.5	40.1	34.7	34.1
At Least Weekly	22.5		24.9	29.6	39.6	40.2	45.2	53.2	58.9	62.5
(N)	(315)		(313)	(260)	(331)	(286)	(301)	(299)	(124)	(264)
p-value	--		.073		.005		.006		n.s.	
Cramer's V	--		.10		.13		.13		.07	

MALES

Amount of Dating	6th		7th		Grade 8th		9th		10th	
	1978		1978	1979	1978	1979	1978	1979	1978	1979
None	34.5%		23.9%	19.8%	13.9%	8.5%	9.6%	6.9%	2.8%	6.7%
Less than Weekly	34.8		40.7	46.8	40.4	44.8	38.5	35.9	27.8	38.8
At Least Weekly	30.7		35.4	33.4	45.7	46.8	51.9	57.2	69.4	54.5
(N)	(339)		(280)	(293)	(337)	(248)	(270)	(276)	(72)	(224)
p-value	--		n.s.		n.s.		n.s.		.067	
Cramer's V	--		.07		.09		.06		.14	

TABLE 3: Relative Ages of Members of the Opposite Sex
Students Meet or Go Out With by Grade, By
Year and Sex

FEMALES

Opposite Sex People Students Met or Went Out With Were . . .	6th		7th		Grade 8th		9th		10th	
	1978		1978	1979	1978	1979	1978	1979	1978	1979
Same Age or Younger	82.6%		65.8%	73.4%	50.8%	55.9%	50.6%	40.4%	34.5%	37.2%
Older	17.4		34.2	26.6	49.2	44.1	49.4	59.6	64.6	62.8
(N)	(178)		(219)	(203)	(258)	(247)	(253)	(275)	(113)	(250)
p-value	--		n.s.		n.s.		.023		n.s.	
Phi	--		.08		.06		.10		.02	

MALES

Opposite Sex People Students Met or Went Out With Were . . .	6th		7th		Grade 8th		9th		10th	
	1978		1978	1979	1978	1979	1978	1979	1978	1979
Same Age or Younger	87.6%		80.5%	87.2%	82.7%	87.5%	87.3%	81.3%	85.5%	89.3%
Older	12.4		19.5	12.8	17.3	12.5	12.7	18.8	14.5	10.7
(N)	(217)		(210)	(234)	(284)	(224)	(237)	(256)	(69)	(205)
p-value	--		.073		n.s.		n.s.		n.s.	
Phi	--		.09		.07		.08		.05	

TABLE 4: Comparisons of the Type of Dating Within Grades 6 through 10 for Those People Who Date by Year and Sex

FEMALES

Type of Dating	6th	7th		Grade 8th		9th		10th	
	1978	1978	1979	1978	1979	1978	1979	1978	1979
In Groups Only	52.4%	48.7%	41.0%	30.5%	31.6%	28.3%	26.2%	19.0%	12.9%
As Couples	47.6	51.3	59.0	69.5	68.4	71.7	73.8	81.0	87.1
(N)	(191)	(228)	(210)	(262)	(253)	(258)	(279)	(116)	(255)
p-value	--	n.s.		n.s.		n.s.		n.s.	
Cramer's V	--	.08		.01		.02		.08	

MALES

Type of Dating	6th	7th		Grade 8th		9th		10th	
	1978	1978	1979	1978	1979	1978	1979	1978	1979
In Groups Only	32.4%	24.4%	17.4%	19.0%	22.0%	22.5%	12.1%	14.3%	12.0%
As Couples	67.6	75.6	82.6	81.0	78.0	77.5	87.9	85.7	88.0
(N)	(222)	(213)	(235)	(290)	(227)	(244)	(257)	(70)	(209)
p-value	--	.089		n.s.		.003		n.s.	
Cramer's V	--	.09		.04		.14		.03	

TABLE 5: Percentage of Daters Who Engaged in Necking and Coitus by Year and Sex

FEMALES

Percentage of Daters Who Engaged in . . .	7th		Grade 8th		9th		10th	
	1978	1979	1978	1979	1978	1979	1978	1979
Necking	48.6%	52.8%	66.9%	69.1%	78.2%	74.4%	80.2%	81.6%
(N)	(214)	(193)	(242)	(236)	(243)	(262)	(111)	(245)
p-value	n.s.		n.s.		n.s.		n.s.	
phi	.04		.02		.04		.02	
Sexual Intercourse	14.9%	6.3%	12.5%	15.5%	15.0%	18.1%	25.3%	27.8%
(N)	(201)	(191)	(224)	(213)	(233)	(243)	(99)	(223)
p-value	.009		n.s.		n.s.		n.s.	
phi	.14		.04		.04		.03	

MALES

Percentage of Daters Who Engaged in . . .	7th		Grade 8th		9th		10th	
	1978	1979	1978	1979	1978	1979	1978	1979
Necking	71.2%	74.2%	78.2%	78.6%	82.4%	85.8%	86.4%	86.0%
(N)	(205)	(229)	(280)	(224)	(233)	(253)	(66)	(207)
p-value	n.s.		n.s.		n.s.		n.s.	
phi	.03		.00		.05		.00	
Sexual Intercourse	19.7%	25.3%	36.0%	31.9%	31.2%	45.4%	40.6%	44.1%
(N)	(193)	(217)	(253)	(216)	(221)	(238)	(64)	(188)
p-value	n.s.		n.s.		.003		n.s.	
phi	.07		.04		.15		.03	